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2020 Media Futures

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What will our media and entertainment be like by 2020?

2020 MEDIA FUTURES

Edited by Greg Van Alstyne

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S lab
OCAD UNIVERSITY

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About sLab
Strategic Innovation Lab (sLab) is a centre for research and innovation based in the Faculty of Design at the OCAD University. Located at 205 Richmond Street West in Toronto, sLab operates on a model that integrates academic research, professional engagement, education and skills development for stakeholders in the private, public, and not-for-profit sectors. sLab is a growing community of researchers and practitioners, design and business professionals, teachers and students, who are passionate about envisioning possible futures.

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Preface

All schools are committed to the future; after all we are invested in educating the next generation of talent. However OCAD University has a special interest in the grasping long-term trends, through our curriculum and research in Strategic Foresight. We believe that design thinking is a crucible that emerges both analysis and solutions that can guide us through economic, technological and social challenges.

The research results that follow represent OCAD University's holistic commitment to education, to the creative cultural industries, and to imagining better, more inclusive and livable futures for all.

Led by Strategic Innovation Lab (sLab), this project demonstrates the analytic skill and invested passion of our Strategic Foresight and Innovation masters degree students and faculty. The results of the research will help us to leverage and direct future discoveries in several of OCAD University's laboratories: the Super Ordinary Lab which examines and redirects applications of existing technologies and prototypes, the Mobile Experience Innovation Centre (MEIC), representing innovation in the larger mobile technology and content sector, and the university's comprehensive Digital Futures Initiative (DFI) .

Most importantly, it is our aim and hope that this research strikes a chord with the broad "creative cluster" community of which OCAD University is a part. We hope you find it insightful, provocative, and above all, valuable in your efforts to grow and transform our creative cultural sector, in Ontario and beyond.

Dr. Sara Diamond
President
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Welcome

Madeline Ashby & Greg Van Alstyne

http://2020mediafutures.ca/Welcome

Welcome to the future of media. The book that you have just downloaded, printed, purchased, clicked, thumbed through, pinched open, or otherwise activated is the result of extensive collaboration among Ontario's creative media cluster, Strategic Innovation Lab (sLab) at OCAD University, our project funder Ontario Media Development Corporation (OMDC), and our corporate sponsors.

The 2020 Media Futures project is an open-source strategic foresight research endeavour intended to help members of the cluster — the book, magazine, music, film, television and interactive digital media industries – to "future-proof" themselves and their creative livelihoods. These creative professionals include writers, filmmakers, producers, music label executives, game developers, programmers, and other media franchise specialists. To help them prepare for the future, we employed strategic foresight research methods and practices. Our process and project structure are detailed on page 31. But before recounting that material, we present the heart of the project, the narrative and contextual scenarios developed through this consultative, participatory process.

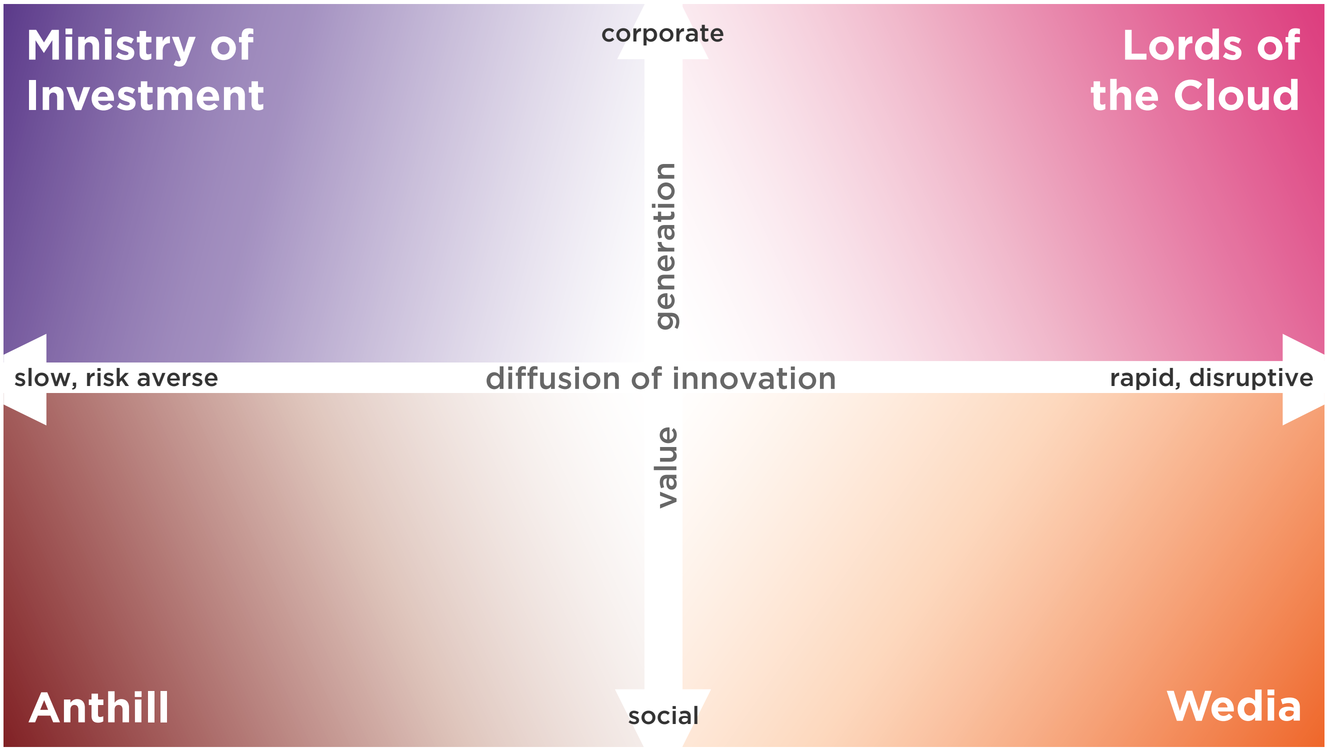
These scenarios are the result of analytical and synthetic work described in the pages that follow: horizon scanning for signals and trends in consumer behaviour and the media industries; collaborative workshops with industry experts and professionals; and sense-making exercises led by sLab team members to understand the data that we gathered.

In many ways, the scenarios were the ultimate goal of the project: four unique visions of possible futures that members of the creative cluster could read, critique and engage with. But as we discovered, the research process that led to their writing was its own reward. Ontario's creative community is diverse, highly opinionated and innovative.

Through our interactions together we gained experiential learning about the needs of these industries, but also a rich understanding of their hopes and fears for the future. Our participants in turn clearly took advantage of opportunities to establish new network connections with one another at our events. We are grateful for the honesty and energy of their contributions to this project.

In the corner of each chapter heading is a **QR code**. Using a compatible app and camera-equipped smartphone or tablet, scanning this 2D barcode will direct you to specific pages in 2020MediaFutures.ca, where you can browse, search, share and explore relevent documents, videos, reports and reader comments.

If you are reading the PDF and you are online: Selecting **red text** will direct your browser to a corresponding link in 2020MediaFutures.ca



What will our media and entertainment be like by 2020?

Ministry of Investment
A commercially-driven, risk-averse environment dominated by the two largest telemedia companies in the country, vertically integrated corporate behemoths who move in lock step with each other. Bell and RBC have merged, forming the only real competitor to RogersMedia. Customers sign exclusivity contracts, and are locked into different content distribution cycles as a result. Paying for access and paying for content are one and the same.

Lords of the Cloud
A highly corporate world of rapid, disruptive technological innovation and adoption, affording new configurations of media partnerships, platforms and processes. Travel is rare but big licensing deals – and big litigation – are common. Canadian media industries have honed their reputations through assembly of transmedia properties, frequently via international coproduction. Many have become rich targets for acquisition.

Anthill
A Canadian media context characterized by slow-paced diffusion of innovations, and an insubstantial level of funding for media development. Some welcome the inertia, embracing the "slow media" movement and eschewing "big content," while others remain frustrated with the lack of opportunities for more traditional success. Canada has developed an Internet kill switch and policy designers work on a New Communications Act.

Wedia
A world of rapid, disruptive, and socially driven change which sees many large institutions dissolve in the face of new forms and channels for invention and entrepreneurialism. Major content providers including CBC have splintered into fragmentary units manned by individual producers who do their own distribution. Ad campaigns and other long-term creative productions are increasingly rare, but remix is both rampant and legal.

SCENARIOS

Led by Greg Van Alstyne, Spencer Saunders, Suzanne Stein, Madeline Ashby and Karl Schroeder

http://2020mediafutures.ca/Scenarios

The purpose of foresight scenarios is to inform and guide strategic planning, leading to better present-day decisions. Scenarios must be plausible, but more importantly they should provoke new perspectives and insights. The 2x2 matrix at right reveals four original scenarios, stories of possible worlds through which the future of media may play out. The environments created at the four corners of this matrix reflect contemporary hopes and anxieties within Ontario's interlinked media economies. They articulate tensions between top-down and bottom-up content producers, the uncertain future of institutions such as the CBC, and the role of big-name telcos in media infrastructure and distribution.

The 2020 Media Futures scenarios that follow were developed as a synthesis and distillation of analytical work, taking place over eleven months in 2010. We sought to understand patterns and driving forces of change in the Creative Cluster, through a series of meetings with our partners and colleagues. In these facilitated and structured workshops, we discovered and examined drivers within the creative industries that might have deep impact on the future of media.

These Trends and Drivers workshops laid necessary groundwork (discourse and process), culminating in a two-day Scenarios workshop. About forty participants met in plenary as well as dividing into four breakout groups. Through presentation and discussion we ranked drivers in order of importance, clustering and naming groups of drivers. After debating the relevance and independence of the candidate groupings, through a facilitated voting process, participants agreed on the structure seen here.

Developments within each world are coloured by factors uncovered and prioritized by the 2020 Media Futures team together with our partners and workshop participants. The worlds differ markedly because certain **Trends** may be reinforced and amplified by divergent **Critical Uncertainties**: drivers of change with high potential impact, which, at the same time, are very difficult to call. These uncertainies form the central axes of the diagram.

The horizontal axis expresses **Diffusion of Innovation**, seen as **measured and risk averse**, or **rapid and disruptive**. The vertical axis expresses **Value Generation** as predominantly **socially driven** or **commercially driven**. Crossed, the axes form a **2×2 matrix** with four areas, each featuring diverse characteristics (biologists may recognize the *Punnett Square* as used in cross breeding). These four areas are the sites of our scenarios.

Scenario Form and Structure

Each scenario is explored through several forms: a **Narrative** written from the perspective of our protagonist, *Apti Riel*, a woman in her mid-thirties. Ms. Riel appears in all four stories, where she has a career relevant to that scenario, and interacts with other professionals within the Creative Cluster.

Each scenario is illuminated by an original **Illustration** commissioned for this project. Further exploration is supported by a prose **Context** segment—a kind of 'history of the future'. A **Backcast Timeline** with hypothetical news headlines and other key developments completes each scenario.

A **Scenarios Comparison Chart** highlights divergent characteristics in each possible world. Finally, we offer results from a **Black Swans** exercise in which participants were asked to imagine and describe low probability, high impact events.

Ministry of Investment

A world of measured, risk-averse innovation and corporate value generation

Apti had been expecting the message. Still she was slightly startled when her mobile went off. Bit of a buzz kill, she thought, making a mental note not to schedule work so close against defrag time. Reaching for the device, barely looking, she muted the glassy melody with a swipe of her hand. Illumination in the room rose slowly as the meditation sequence dissolved away in the homeoffice automation system, a standard feature in BellRBC Residences. A fresh pot of chai started in the kitchen. In a few minutes she'd be enjoying the aroma.

Stretching in her task chair, Apti reaching for the ceiling before commanding, "OK, pick up." The screen lit up with a friendly face, familiar and tinted with that popular filter. She thought to herself, couldn't they come up with a better filter by now? "Hello my old friend!" Apti spoke into the camera, picking up her device on the way to the kitchen. Today was Helen's birthday.

Helen and Apti became close at University. Helen got the job at Rogers Media the same week Apti got hers at BellRBC, right after graduation. They had managed to stay in touch over the years but it's been getting harder. The two companies' networks were so heavily firewalled, it was now officially futile to video call from one to the other without some kind of disruption – glitches were notorious. But this nonsense was really only a problem with Helen. Most of her friendnet was on BellRBC.

She'd heard of a workaround to access one network from the other, but they weren't legal. Apti heard of people in the city who could breach both firewalls. They are called Switchers – they manually tap into both fibreoptic hard lines and setup gateways to access content from both networks through a single access point. They then offer these points up to people who want to watch content from both networks. She was tempted. Last year a show was advertised on the billboards in the city centre that she wanted to see, but Rogers brokered the deal first. It would be two years before the Right to Syndication provision kicked in and her provider could option the show for download.

In mid call came another interruption from her device. "5 o'clock – Josh. Dentist." Apti had forgotten that her son had an appointment today. Or maybe it had just been moved up by the dentist's office? No matter, it wouldn't have been rescheduled if it there were a conflict with anything else in her schedule. Josh's resident private school was connected to the Health and Wellbeing Centre on the west side of her BellRBC campus. She'd need fifteen minutes to get from the homeoffice tower across the park to the school.

Illustration: **Ryan Lake**

This week marked the start of her second year on Project Mercury, the integrated content and commerce platform set to roll out in all BellRBC networked homes in the country. Mercury promised to bring complete merchandise integration to all streams served across the network. Apti knew this was not revolutionary technology or solution – after all, Googlezon rolled it out in the States nearly two years ago – but it'd taken more time than expected to negotiate the cross-border trade issues and distribution strategies. Sometimes the global content market was not as seamless as the rhetoric suggested. Apti also suspected that the Board needed to see the technology proven before it would commit the time and resources, and they knew RogersMedia was doing the same thing.

Apti could hear Josh in the kitchen getting ready. She glanced at the time and thought, better get the show on the road. She was free to work whatever hours she chose, as long as the work got done and she made her numbers for the quarter – and there was still so much to do.

Ministry of Investment — Context

A commercially driven, risk-averse environment dominated by the two biggest telecom conglomerates in the country, moving in lock step with each other

By 2020 the two major Canadian telecommunications companies had emerged as the biggest businesses in the country. They began to achieve this dominant position after realizing in the late 2000s that the key to their survival was not only controlling the pipe that brought streams to people's homes, but owning – or at least having privileged access to – the content itself.

Consumers had waged a pitched battle against usage-based billing (UBB), with repeated social media campaigns, including the creative "Dark Days" boycott. However in the country with some of the highest telecom fees and poorest service of any OECD nation, regulations were sculpted around the interests of large, cash-rich incumbents. Consumers lost, and both BellRBC and RogersMedia began to meter and charge households on their Internet use in a manner similar to today's utilities. Bandwidth became a commodity in Canada, and BellRBC and RogersMedia were allowed to set its price quarterly, based on the cost of acquiring and delivering content, as well as maintaining the networks.

Perhaps the farthest-reaching consequence of this duopolistic, vertically integrated, bandwidth-as-commodity regime was a new model of paying for content that was indistinguishable from paying for Internet access. Effectively they had become one in the same. The more content a household or business consumed, the higher the bill. Every address in the country was either a Rogers or BellRBC customer, but never both. Consumers signed exclusivity contracts that included all telecommunications services and devices. The Canadian content market by 2020 was streamlined in comparison with the fractured landscape around the turn of the century. Both BellRBC and RogersMedia operated in a bid-driven fashion to option content, with premiums paid to fixed-term exclusivity; Rogers might pick up a show and make it available to their network 12–24 months sooner than BellRBC, provided it was willing to pay a premium to do so.

By 2019 both BellRBC and RogersMedia had made appeals for lengthy (even unlimited) exclusivity rights, but the CRTC ultimately ruled against that, putting two-year caps on all distribution deals with exclusivity charges. The only exception to this rule was the netcasting of sporting events. The CRTC mandated that BellRBC and RogersMedia negotiate a method to license the various events and teams that each company owned. And most teams were now owned by one of these two companies.

Casual content piracy by consumers, of concern to large publishers if no one else, became a rarity as streamed delivery gradually became the norm. The acquisition and collection of content was no longer the goal of consumers. The youth generation of 2020 had never known the tangible experience of purchasing a record, or a CD, or even going to a bricks and mortar retail store to browse for new releases. There arose a generation that did not covet the artifacts of creativity, but placed greater value on being able to access it.

Innovation slowed but found its niches, as always. Tribes of proficient users – Switchers – found novel ways to connect the nets, manipulate service caps and adapt subscription-based cloud storage.

Still, few new commercial services were born. Canada continued to earn a "D" for Innovation in the Conference Board's Report Card. The rise of UBB, which had cut off the air supply to piracy, had the same impact on innovative social and creative media startups. Meanwhile users, placated by Hollywood shows and basic time- and place-shifting, continued to surrender disposable income in large quantities to the duopoly. Most no longer perceived that they were paying for individual content assets. They now seemed happy to have "free" access to whatever they wanted – provided it was in network and fit the billing plan.

Content delivery was not limited to film, music television and games, but grew relentlessly to include books and magazines, which were rarely found in printed form. Magazine publishers stopped printing and shipping on dead trees after the protracted energy crisis of 2015–16. With the exception of a few lavish titles, they simply couldn't afford to make the physical product or move it to consumers. A few hybrid forms, integrating video and text, took hold. With the rise of bandwidth anxiety came an unexpected plateau of rich social media in mid-decade, taking the wind out of the sails for many research and commercialization experiments.

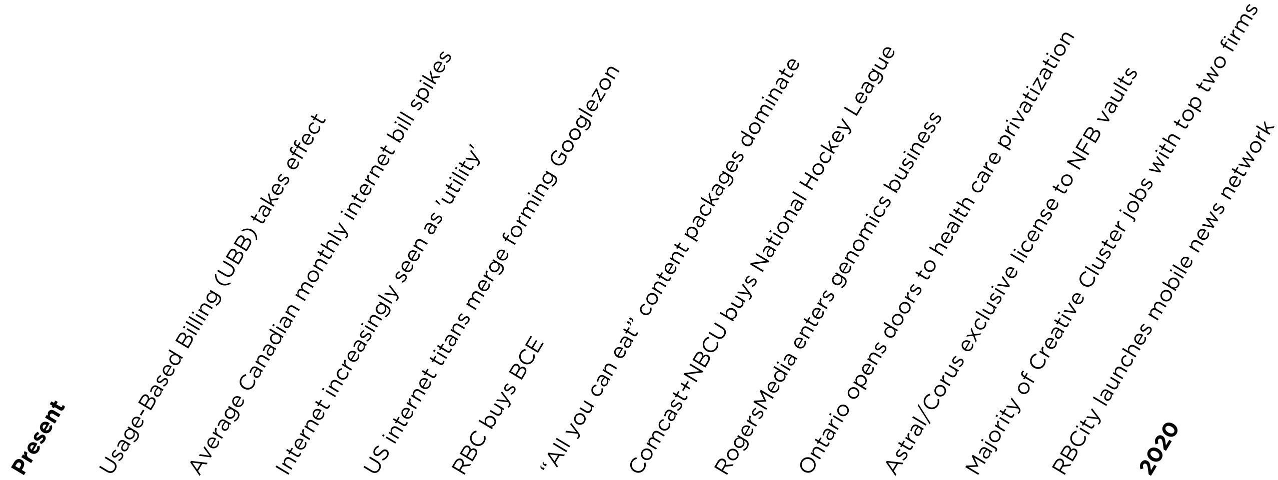
Producers came to rely on the Canada Media Fund, which was renamed in 2017 to the Canadian Content Fund (CCF). The cost of production fell to less than a quarter of what it was a decade prior, but the content-as-commodity business model put downward pressure on distribution rights. There were a few notable successes in the Canadian media industries – companies producing stories that appealed not just to a home market but to global audiences.

The toughest decision affecting Canadian content producers by 2020 was the type of distribution deal they might accept. Some opted for the short-term win of exclusive distribution with RogersMedia or BellRBC, but these usually carried with them a clause allowing the licensee to resell international rights, providing only a small portion of the profit back to producers. The alternative was for producers to go to the global market directly, a higher-risk proposition but one that had lead to several surprisingly successful franchises. Whenever an independent production company garnered a number of big 'wins', in either the domestic or, more significantly, global market, the company typically became an acquisition target by BellRBC or RogersMedia. This merger and acquisition trend became clear just prior to 2020, along a path seen in the high tech industries a decade prior.

MIPCOM, the annual content exchange event held in Cannes every year, became virtual and truly global, re-branding itself as the Global Content Exchange. It began to operate in a manner similar to a stock exchange, except what was being bought, sold and optioned was content. New arms of media companies were spawned as a result, functioning as brokers who watched the value of content assets rise and fall based on supply and demand. Mechanisms were put in place allowing brokers to short sell, purchase on margin, and issue warrants on content assets that were predicted to perform well.

The name of the game in the Ministry of Investment was content as commodity – with success going go to those that commanded their share of minds and markets.

Facilitated and written by Spencer Saunders



Ministry of Investment — Backcast timeline

Lords of the Cloud

A world of rapid, disruptive innovation and corporate value generation

Apti awoke gently to her light-activated alarm. It was her favourite travel item. She was surprised at how rested she was, given that she'd had only four hours' sleep. As she indulged in her morning espresso, she checked a nearby tablet to see if there were any new messages. She was on international time, being responsive to several time zones at once. Nothing alarming. Good.

She was in Toronto and debating relocation to their new offices there. It was an acquisition and a contentious one: the venerable Canadian Broadcasting Corporation, CBC was now majority owned by Mediaphor LLC, a conglomerate with mostly Canadian and Scottish leadership, following the latter's break from the UK. Though her home offices were in Dubai, she wasn't a local there either — just one of the many migrant knowledge workers that bolstered that economy. Mediaphor had properties around the world.

However, she didn't actually travel very often. No one did, really. Carbon taxes saw to that. Relocations happened but travel was extravagantly, prohibitively expensive. Telepresence technologies filled in. As a lawyer, she relied on remote signature technologies that could produce defensible digital signatures. Law had changed. She was a specialist in International Intellectual Property (IIP) and worked within media production teams, ensuring that they encoded all the proper MakersMarks and had agreements in place as needed. The landscape was particularly challenging: broadcast models had changed, integrating narrowcast platforms and working within a network of content creators – often international in nature.

Canada could no longer justify the extent of its investments in the CBC as public appetites for extra-territorial, transmedia and prosumer content only grew more gluttonous. Certainly the nation's broadcaster had reinvented itself, and done a fine job according to diehard supporters, but it simply could not keep up with the surrounding maelstrom of creative destruction. The government still had a stake in the entity but had sold portions off, hoping that it would kick-start a new and necessary model of working and creating. Looking back, Apti realized that the real death knell had been the collapse of the BBC. This was the world of full-body telephony, where intelligent MakersMarks encoded into fanvids could identify who was consuming what and where and how often — a technology that would have enabled more infringement suits than ever, had the laws not changed to protect the fringers.

So today was the day that leadership was beginning its first day of sessions with the new team, model and partners. She debated her dress – was the black suit too mournful? Would too much colour look overly optimistic? Canadians dressed very casually, she noted. They seemed casual in everything – perhaps this was part of the charm and the challenge.

Illustration: Ryan Lake

People loved working with Canadians – “an affable and creative culture.” Protecting IP wasn’t a strength, back then. Now it had to be. That was her challenge.

As she walked to the offices, she wondered if the Water War had made the country more disposed to the steps she was about to implement. Or had it made them more protectionist and resistant to her arrival? Regardless, “the corporation” was now privatized, with strong government investments in R&D – largely for new platforms and technologies that served a new way of working and a marketplace that was still trying to stabilize.

Ambition ruled the day, internationally, and the Canadian production houses were hot items for content. Granted, the business processes, coproductions and distribution mechanisms all needed a reboot. But the Canadian foothold would be a benefit in the mid- to long-run strategy of her conglomerate, as water shortages elsewhere meant a big boon for the Canadian Data Server Farms where cool, green IT was assured, at least for the next ten years. She made a note to look into the Candata IPO when she got back.

For now, though, she had a meeting. Opening the door, she noticed two different telepresences: one robotic, the other projected. Apti smiled. Just like home, she thought.

Lords of the Cloud — Context

A corporate world of rapid technological innovation and adoption, affording new configurations of media partnerships, platforms and processes

In 2020 the media landscape in Canada had shifted dramatically. Conservative governments here had divested themselves of funding a culture industry for Canadians. They had invested in the technology sector for commercial reasons. Canada was poised to become a place of Research and Development for many companies – national or otherwise. It had created a technological infrastructure for securing, managing and distributing data. The media companies were pulled into the mix, as Canadian content production had been revered for a long time as being world-class.

No longer relying on government funding structures, many professionals in the Creative Class had no work. And many of the creative hot houses, such as residencies and small collectives simply folded. But some of the entrenched professionals and organizations found themselves in the new technology space, monetizing their assets by data flow and international mechanisms of distribution through international partners and owners. The media and arts scene was not dead – it was just tougher to break in. There were plenty of conferences and trade shows. Canada was particularly good at creating educational content for an international audience and their main competitor was the BBC, now a private-public partnership.

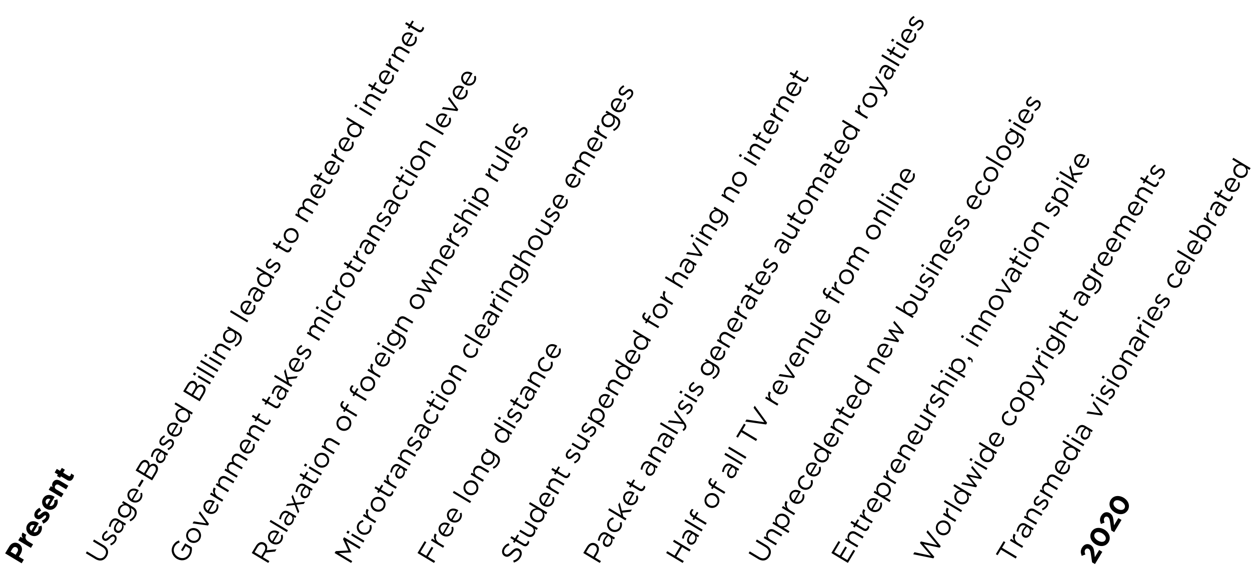
The digital divide in Canada was growing at the same time that access to technology was becoming essential to almost every aspect of civic, social, and professional life. Although Internet access was considered a human right, the problem was far from resolved. Some sectors were very prosperous – and those players within the sphere of technological innovation were well off. Wealth generation was on the rise but the social infrastructure was suffering, as it wasn’t distributed through services or other mechanisms of support – for the individual or the company.

Incentives for research and development drew large companies in, and helped some national companies grow. Investments were largely international in nature coming from the USA, BRIC, and the Middle East. There was a lot of horizontal and vertical integration, producing a landscape of many large, dominant players that used ownership and control to innovate and sell. The ecology was diversified by start-ups or spin-offs, most of whom had seed funding. The companies welcomed this mix, helped create this mix to spur on agile innovation – a known tactic. If successful, these smaller players would often times be (re)absorbed into a larger organization, or their IP would be purchased outright for particular assets and they might be funded to create new ones. The landscape was dynamic, energized and harsh. Social innovation required ROI to get noticed and many efforts were only supported through philanthropic foundations, not venture capital.

Birth-rates have continued to fall and much of the population in Canada are migrant workers – skilled and “unskilled.” Water shortages internationally have made Canada a destination for migrants and companies. The cost of living has gone up, including the cost of education. Society is made up of haves and have-nots in a more dramatic fashion than a decade prior. Education and medical infrastructure, as well as the Internet are all running on two-tiered systems. Canada excels in all of these realms – education, medical and some technology sector industries as profitable, world-class players, largely due to its excellent content creation and data warehousing.

There are many game-changing technologies, devices and formats. Canada has invested in significant technologies that evolved into commercial success – such as new user interfaces, and new platforms for representation, such as 3D technologies and ambient, virtual display systems.

Facilitated and written by Suzanne Stein



Lords of the Cloud — Backcast timeline

Anthill

A world of slow-paced, diffusion of innovation and socially-driven value generation

Not many policy designers made their way from the parklands of Ottawa to the cloisters between Hamilton and Toronto. Unlike Apti, not many of them had nieces like Swapna devoted to slow media, and not many of them had the New Communications Act to report on.

For the past ten years, the pace of Canada's media innovations had slowed to a crawl. Sometimes it felt like the country itself were throttled, choked more tightly than a Rogers pipeline, its creativity sapped dry as the discarded oil sands. Sometimes Apti dreamed that The Great Northern Shutdown had lasted a little longer than two days, and had extended beyond Nunavut. Maybe then, some real change would have taken place. But a protest about water sovereignty was just that, a protest, not a galvanizing moment in the history of Canadian technology and civil disobedience. Not the kind of moment that could have dug her niece out of the cloisters.

Her niece had wanted to be a performer. Her BPI score – the Bieber-Phan Index number, the sum total of her Kinect yogarhumba performance stats, her Tube views, and comments made versus comments earned – was astronomically high. In the States, she'd have a manager already. In India, she'd have starred in her first commercial, perhaps even danced as an extra in her first production. But in Canada, she had no chance. Her school didn't even have money for holiday pageants. If she wanted to make it she'd have to emmigrate, or join one of those "slow media" collectives: street performers by day, Tube stars by night, eschewing any and all works by major studios as culturally unethical, refusing what little money still trickled from the old channels. She'd be like a Dickens or a Poe, struggling far too much for far too little. At least, this is what the family had told her. Then her niece cloistered herself.

The cloisters were different from the old artist collectives that had once thrived in Toronto and Boston and New York. Collectives were single-household enterprises – the Cloud Club, the old Artscape towers, the former domain of Cosi Fani Tutti and their ilk, Cloisters were whole city blocks wide. Their denizens renounced mass media, and refused to hook up to any major pipeline or pay any recognizable telco. Live performance was their ethic. Live, and only live. Apti had watched online video of a man getting a beatdown for even shooting the video. To view any performances, you had to venture beyond the city limits.

To watch her niece dance, Apti had to visit the Hammer. The Hammer was what remained of the industrial wastes between Toronto and Hamilton. When Hamilton hovered at the edge of bankruptcy, it pulled a Detroit maneuver and scraped off all but the core from its city limits. What businesses still clung there soon left. Then, the artists came. They took over

Illustration: Ryan Lake

the decrepit warehouses and abandoned machine shops. They slept in the empty shelves of the big box stores. It was all very illegal, but it was also hard to pin down. The OPP had bigger fish to fry than squatters, and after dark no one really wanted to be in those twisting, turning streets, all of which seemed named after a species of rodent.

But Apti had news to report: after far too many years, she and her team had re-designed the latest iteration of the Communications Act. It had risen slowly but steadily through the tiers of Parliament. It was a pale shadow of the Doctorow-Geist Bill of 2014, the one Apti's niece had marched in support of. Sure, throttling was still possible. And sure, the killswitch could still be activated. But privacy regulations would now be more stringent than they had ever been, and you could sue if a DRM-enabled file did a rootkit on your system, or if any file from a corporate entity violated its website's privacy seal. The telcos would forward more money from their access fees to new media funds. Heritage and the other ministries would finally start recognizing things like games and remote-embodied performance as art, and projects related to these disciplines would find more funding.

Apti found her niece teaching a body confidence course in the weed-choked remains of a parking lot. Swapna must have thought she was another one of the cloistered, at first, because she made the universal gesture for "come on in, the water's fine!" as a troop of young girls – some of them primary school age – contorted themselves on the asphalt.

"This is all about showing the whole world what you can do," Swapna said, as Apti came closer. "That's why we're outside where any old drone could see us."

"Won't they record us?" one of the girls asked. "Probably," Swapna said. "Consider it an act of charity, girls. This is probably the most interesting performance those government types will see all year. The rest of the time, they're stuck with the Pablum the commercial entertainment complex feeds them."

"What's Pablum?"

Swapna caught sight of her aunt and beamed. "It's a Canadian invention."

Anthill — Context

A Canadian media context characterized by slow-paced adoption of innovations, and a miniscule amount of funding for media arts development. Some welcome the inertia, embracing the "slow media" movement and eschewing "Big Content," while others remain frustrated with the lack of opportunities for more traditional success.

2020 marked the year that Canada finally legislated the New Communications Act, a feat of policy design whose features many in Canada's media, legal and innovation sectors argued were long overdue. Until 2016, Canada pursued an aggressive copyright policy that limited both technological development and (to a far lesser degree) the sharing of media texts. This policy, coupled with the trend among Canadian telemedia firms to throttle their pipelines in exchange for tiered fees, had resulted in small but vocal (and viral) protests among digital natives and those with frequent access to international data networks.

However, the issues of net neutrality, copyright reform and stable privacy regulations remained niche concerns until the triumph of the youth-oriented, Internet-friendly NDP in 2011. This led to the writing of the Doctorow-Geist Bill of 2016. The Bill was so beloved among its supporters that they organized rallies in major cities across Canada. These rallies were frequently attended by fringe organizations like Anonymous and the Black Brigade, which led to police involvement and arrests. The tasering death of a young girl named Mandy Jackson following one such arrest further boosted discussion of both the rallies and the Bill.

The one area that Canadian authorities made certain to innovate technologically was in an Internet "kill switch," similar to the one used in Egypt in their Arab Spring protests. It was designed to disable Internet access within a limited area, and was used during a multi-day protest in Nunavut for native water access rights. This event became known colloquially as the "Great Northern Shutdown." It received comparatively less attention than the arrest and death of Mandy Jackson, although community organizers in Nunavut argued that the Shutdown signified a greater shift in Canadian policy.

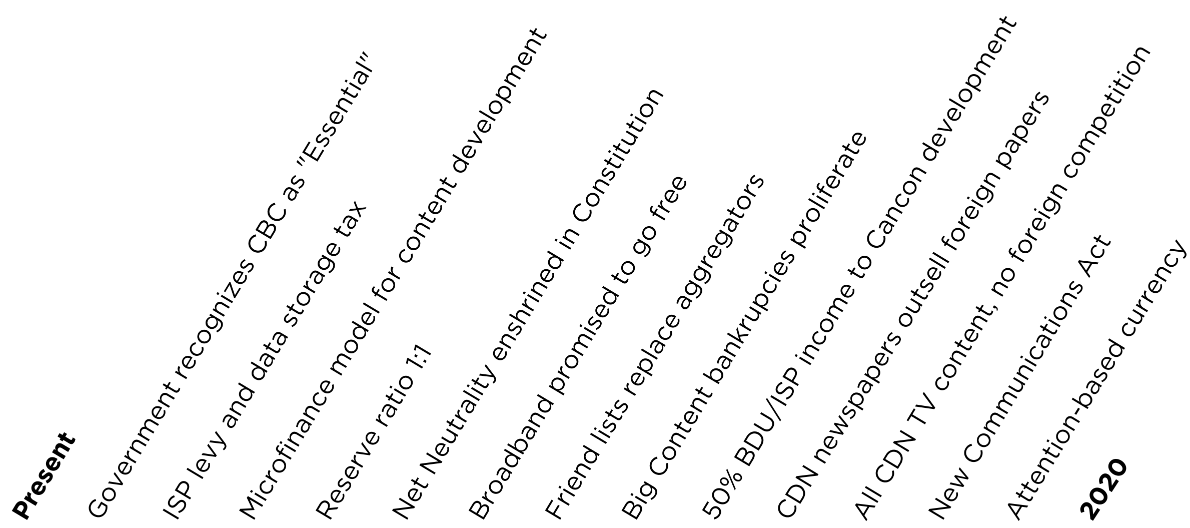
Although the Doctorow-Geist Bill failed in Parliament, the core issues became part of mainstream public discourse in a new and important way as a result of the Bill's audacity and rallies it inspired. Canadian understanding of copyright and related issues deepened. This discourse paved the way for future discussion when another Bill proposed more stringent levies on Internet service providers with the intent to provide funding for Canadian content via a central federal pool. This Bill would have established an entirely new fund available to all Canadians, with a broader definition of "media" to be developed. Like the Doctorow-Geist Bill, this move also failed to survive Parliament when prominent ISPs promised to continue self-regulating in this area and vowed to make annual "cost of production" increases to provincial new media funds across the country.

Due in part to these promises, provincial and regional funding for new media production was more resistant to cutbacks than federal sources. This hyper-local availability of funding spawned smaller media ecosystems centred on localized production. Coupled with the "slow media" movement spreading across much of the industrialized world in reaction to the alleged tyranny of "Big Content" (embodied by major Hollywood studios and other well-known, big-budget cultural producers in India and China), provincial productions enjoyed a slow but steadily increasing success. These bottom-up producers became celebrated in their communities as local heroes, and often saw no need to expand their reach beyond the boundaries proscribed by limited bandwidth and resources. "Crowdfunding" and other innovations in microfinance enabled these producers to fundraise among their audiences, rather than looking to more traditional channels for assistance. In extreme cases, these local heroes ensconced themselves in art districts at the fringes of major cities.

Rising popularity and effectiveness of microfinance also led policy makers to finally measure the opinions and leanings of certain demographics within Canada in a new way. Specifically, it allowed them to learn more about the opinions of younger constituents who often did not vote or otherwise participate in traditional democracy, but who chose instead to "vote with their dollars" and abandon telemedia giants (and Parliament Hill favourites) in favour of smaller, more local ISPs.

The most important of these observations was the understanding that most Canadians no longer had any desire to pay for cable television or other cable-borne services, aside from the Internet. Perhaps more than any other demonstration of the common will, this illustration of where Canadian customers wanted to spend their money made current realities plain for policy makers in Ottawa. This inspired the creation of the New Communications Act in 2018. It required years of data mining and knowledge gathering, and still it just barely passed.

Facilitated and written by Madeline Ashby



Anthill — Backcast timeline

Wedia

A world of rapid, disruptive innovation and socially-driven value generation

"Look at this one," said Apti's friend Jill, from her coffee-shop armchair. Jill tilted her pad so Apti could see the video of skate-boarders. "It's trending up fast." Apti squinted at it. "Why?" All she could see were a bunch of kids doing pretty standard stunts. "Look where they're doing it."

Apti took the pad from Jill and realized where these kids were: careening dangerously close to ice sculptures from Quebec's Winter Carnival. It was the middle of January, but they were dressed in T-shirts and sneakers as though it were summer. "Nice. Do we have a handle on them?"

Jill nodded. Apti handed back the pad and Jill made a gesture on it that squirted the video and related information to Apti's own pad. "I'm going to get a refill and then we can call these guys."

She and Jill worked out of the coffee shop most days. Big as the old CBC building was, there wasn't enough office space left there for Solo Advertising to bring in all its employees and freelancers at once. That was pretty typical, these days, when the former office towers of downtown were being rezoned to mixed residential/business, and everybody was connected 24/7 through the ultimate level playing field: a global, unthrottled high-speed net that had replaced broadcast and cable television, bookstores—and even the venerable CBC itself.

"Hang on," Jill said suddenly, just as Apti was waving her phone at the barista to confirm her purchase. "Oh, no, it's nothing—I just wondered for a sec if this footage was made with a game engine, but there're no artifacts in the signal from that."

"Good thing to check, though," said Apti as she sat down again. These days, it was hard to know which videos were real and which were being generated, on the fly, with perfect fidelity by somebody with a pad and too much time on their hands. "It's not a mashup, either, I checked." Whoever had made this could have picked and chosen actual footage from the vast libraries of media that had been made public domain in the past five years; but they had actually filmed it, probably using their phone.

There had been so much industry resistance to digitizing all public archives and extending fair-use to allow mashups of famous movies and TV shows. But the result was spectacular: a vast outpouring of public creativity that dwarfed anything the old companies had been capable of. There was no money in production anymore, but that hardly mattered when any teenage kid could make her own Pixar-quality movie in the rec room.

"Who's our market?" she asked Jill. Jill flicked a finger across her pad and the trending demographics slid onto Apti's screen. "Huh. Definitely youth-oriented." She'd had a vague

Illustration: Ryan Lake

notion of providing this clip to a government-funded safety NGO she knew was looking for things like this. But the audience trended a little too young for that.

She made a decision. "I'm calling." Apti waited while the phone rang, then a very young-sounding voice said, "Hello?" "Hi, I'm trying to contact Samantha Brace? Yes, hi, I'm Apti Riel, I work for Solo Advertising. We're just watching your skateboarding video and—yes, it really is trending hot right now. That's what I wanted to talk to you about. "I see nobody's made you any offers to cross-grade your video yet. My company is prepared to pay you and your friends a thousand dollars to let us swap out your shoes in the video for the latest Metrics."

Apti held the phone away from her ear while she waited for the excited screaming on the other end to die down. It was a simple enough deal, and perfectly normal for fast-trending videos: Solo would alter the video images slightly and seamlessly to put Metric's shoes on the feet of the skateboarders. If the video continued going viral, they would in effect have turned it into a Metric ad. This didn't preclude other companies altering it in the same way, but there was a limit; most viewers were savvy enough to try clicking on parts of a viral video, and weren't surprised when things like shoes and handbags turned out to be advertising links. But you couldn't do it with the essential features of a shot or people tuned out.

"Let's see what else is out there," Apti said, turning her attention to the next clip.

Wedia — Context

A media environment of rapid, disruptive, and socially-driven change in which remix is both rampant and legal. Many large institutions have dissolved; solo producers do their own distribution. Technology is powerful, cheap and ubiquitous.

By 2020, the CBC no longer existed. This was hardly a surprise to anyone who had watched the evolution of media in the last decade; the days of the Big Three networks in the States were long gone, too. What dominated by 2020 was not television networks, nor their cable alternatives, but independent production houses, individual shows, and the internet.

Society at large controled the media that were produced and consumed; what curation existed happened at the individual level. People were used to customizing their feeds, which was both a blessing and a curse: a blessing because video and other media were interesting all the time; a curse because pockets of bigotry and extremism flourished and grew when one could tune out any image, news item or voice that challenges one's worldview.

Several key decision-points led to this free-for-all of content and creativity:

* First, the federal government made a massive investment in public bandwidth in 2012–14
* Throttling of internet bandwidth was outlawed
* Canadian copyright law narrowly avoided falling down the rabbit-hole of mandating anti-circumvention technologies to satisfy rights-owners

Canada joined the vast remix-library initiative that began in 2014, which effectively provided a gigantic database of video and music for public reuse. There were many other events in that tumultuous decade: the UN declaration of internet access as a basic human right; new crowd-sourcing and crowd-funding models had become accepted by Canadian banks and major institutions; and of course the continually plummeting cost of computing, storage, and network access. All combined to irresistibly oppose the 'walled garden' model of the older media empires. Nationalism itself had evolved. While nation-states were still important, Canada was a brand as much as a place in the eyes of most people. Deployment and use of the brand were as much a part of governmental strategic thinking as diplomacy and economic relations.

Professionals who couldn't adapt watched in bewilderment as their professions dissolved before their eyes. Video editing became effortless on any home computer or pad, and all packages came with expert systems and training suites. Every mobile device had an HD video camera, and one could buy sunglasses with built-in steadycams and stereoscopic mikes. The art of machinima (using game engines to create animated stories) had fully flowered, since any home PC could generate simulated but photorealistic HD scenes in real time. Book publishers became a boutique niche, since any author could – and did – publish their own ebook, and printed paperback editions were available through on-demand 'jukeboxes' that cropped up in coffee houses across the country. Society's insatiable demand for novelty created overnight sensations who burned out just as quickly, even some who walked away from their week's fame with enough money to retire. And all those public domain images from the 20th century could be remixed and rebuilt and spat out again into the net: new Humphrey Bogart movies, new Mickey Mouse cartoons as the Mouse finally left copyright, and smart systems to analyze directorial styles so that a backyard Tonka-toy drama could have the same cuts and dramatic arc as a Coppola feature.

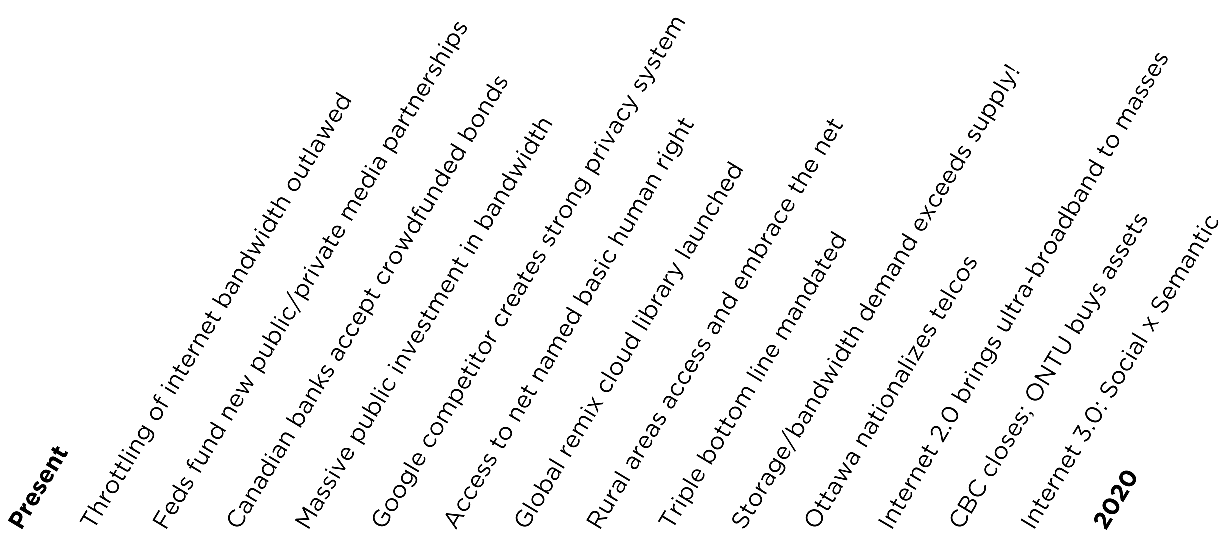
What emerged, at the dawn of the twenty-first century's third decade, was a growing understanding that humanity now shared an epic imagination, a kind of creative space that could outpace the old notions of cyberspace or the Web. All the world's music, literature, photography and visual arts hovered literally at arms'-reach, all the time, available to everyone. Myriad systems arose to help one manipulate it for enjoyment or edification. Those people who made it their job in the past to do those things for people rapidly went broke; while anyone who had made it their business to facilitate the overwhelming explosion of un-owned creativity was thriving.

In a world where any message could be crafted to any degree of perfection, the scarce commodity was now authenticity. How people connected mattered more than ever, and the vast storehouse of narrative, music and imagery become a language in itself that young people in particular used to share their feelings and beliefs. In the 19th and early 20th centuries, educated people shared a rich metalanguage of literary allusion, since most had read the same primary texts: Homer, Shakespeare, the great poets. By 2020, all that and more was available to all kids everywhere. The worst crime that these young people could imagine was restricting their access to such material, because it literally became part of their lives.

For media companies, the one ironclad rule of this era was: facilitate, don't control. Few companies existed anymore anyway, as the economic wealth of media production became divided among more and more stakeholders.

Only scarcity could be be monetized; and in the world of Wedia, none of the traditional products of the media and arts sectors was scarce any longer.

Facilitated and written by Karl Schroeder



Wedia — Backcast timeline


Futures Scenarios Workshop.
· Rate
· Scale
· pattern
BIG money
centralized
INVESTMENT
1
2
3
4
FROM ME-DIA to WE-DIA
Key Characteristics
REPURPOSING ALL MEDIA
You really need to love what you do.
LEGAL PROBLEMS AS LIBEL, PORN, PRIVACY VIOLATIONS PROLIFERATE
Make content or tools that make people feel good. (double bottom line)
GAME ENGINES
- PURE PEER FINANCING
- NETWORKED ANONYMOUS INVESTMENT
- AUTOMATED MARKETS
content/Performances
- object-oriented Production
self-taught skills
group learning
WHO AND WHAT TO TRUST?
of testing
Patricia
Michi
ANDREW
Petri
MARTIN
Pierre
Shari
BENNY
GM
Google
SLOW
FAST
MONETIZATION
RATE
SCALE
of INNOVATION
ADOPTION
BOB
Tony
VJV
SALEEM
NINA
Linux
Lisa
Steven
MIKE
decentralized
investments

Scenarios Comparison Table

Scenario name:		Ministry of Investment	Lords of the Cloud	Anthill	Wedia
E–W axis: N–S axis:	Diffusion of Innovation Value Generation	Measured, risk-averse innovation Commercially driven value	Rapid, disruptive innovation Commercially driven value	Measured, risk-averse innovation Socially driven value	Rapid, disruptive innovation Socially driven value
Characteristics	Canadian content	"Canadian Content" gets lip service but slowly erodes	Canadian products with popular appeal dominate	Staunch lobbying and support for classic CanCon ideas	Canadian identities / stories morph; new hybridity + forms
				Hollywood product is pirated, local product is patronized	
	Regulatory stance	Regulation favours conservative incumbents, familiar models	Regulation finds incentives for high-pcap, high-potential trials	Regulation is values-based, protectionist, cautious	Regulators principled but experimental, dialogue-based
	Net neutrality	Big Capital wins fight re: metred use; net neutrality withers		Net neutrality proponents win but results are mixed, muted	Net neutrality wins and yields unexpected new payoffs
	The Net is ________	Net is a utility with high costs; barriers to broad use remain	Net divides into fast and slow lanes, premium and commodity	"The Net is a Right"; but begins to age like an old public school	Triumphant, the Net secures global infrastructural support
	Vertical integration	High vertical integration: Owners distribute their content	Varying models, some highly unexpected		Professionals at Big Brands are like air traffic controllers / DJs
			Large integrated co's use ownership + control to innovate		
	Success criteria /metrics	Dividends + shareholder value; predictability	Sales are a driver; risk is highly valued, can be afforded	Diversity; participation; effort; sincerity	New ideas; excellence and qualitative social benefits count;
	Effects	Consumer apathy with safe, unsurprising environments	Weath generation is high; but sharing is uneven	Companies methodically iterate	Self-taught, rapid skills dev.
				Time, not money, is valued	No really new content but rather, object-oriented remix
Players	Winners	Incumbent players lead; success to the successful	Owners of IP; skillfull managers of talent and creativity	Small scale social innovators; researchers/educators	Mobile / web-based micropayment players
		Large players do better, aiming for "Too big to fail"	Well funded startups and market creators win;	Pirates band together; "Pirates become admirals"	SME's in consortia and volatile adhocracies
	Global	Rupert Murdoch	Skype finally goes mass		
	US	Time Warner	Amazon	Craig's List	Google
	Canada	Rogers, BCE, Shaw	Kobo/Chapters/Indigo; Gesturetek;	CBC; TVO; Can Lit; Centre for Social Innovation	Lulu.com, MaRS
	Losers	Startups wane as global innovation feeds 'brain drain'	Social innovators lose traction without ROI	Rejection of big budget content, services, companies	
				Advertisers	
Events					
	M+A	RBC buys BCE; RIMM sells to MSFT	High levels of M+A; also high spinoffs		Networks dominate over formal M+A
	Human Resources		New ideas, fast paced learning, economic restructuring	People value their time/families more than $$$	Immigration widened and fast-tracked for global innovators
	Key technologies	anticipated promises fall in place, eg. on-demand films	3D takes root in key realms, as does other, unexpected tech	"Perpetual beta" X.0 as technologies slowly perfected	Game engines, Content mgmt systems, various mixers
				Open, publically regulated recommender systems	Highly immersive, highly connected media
	Key product / service introductions	Few surprises, mostly repackaging	Game-changing technologies, devices, formats	Personal /social technologies march ahead slowly	Emotions, attention, opinion, rapidly tracked and leveraged
	Shocks + scandals	Wikileaking of financial and corporate info			Rapid levelling worsens "trust" question: who, what, why?
					Legal problems as libel, porn, privacy problems proliferate
	Tetrad "Flip into"	Corporations sponsor countries		The Development Struggle becomes an "A-list" job	Realtime "Trust brands" made up of individuals

Black Swans

High impact, low probability discontinuities

	Eco/Tech Discontinuities	Socio/Political Discontinuities	Science Fiction
+	Carbon sequestration finally solved Sustainability (LCA) in realtime The Other 3 Billion get broadband access	Single global currency Avaaz.org = new UN Market leaders, not followers Positive changes take place Targeted decisions via foresightful process	World of Warcraft players get politically organized
~	Rise of whitespace networks overcomes bandwith bottleneck Bandwidth is the new weather	Accessible markets exceed Canadian population World goes crazy for CanCon Canadians become best cultural marketers in the world Micro-credit restructuring with new banking players 49th Parallel dissolves Freshwater superpowers Debts called in by China	Singularity
-	Solar storm disrupts grid EMF's cause cancer; wifi banned	World drought depletes food supply by 85% Privacy black swan: hundreds of RBC accounts hacked Financial collapse Pandemic lockdown depresses air travel for 1 year Pakistan attacks India w/nuclear missiles; China joins India China occupies Canadian North to access fresh water Rise of virtual fascism	Genomic research runs amok; escapes lab End of advertising Organ regeneration franchising AI/robot revolt World War Web Sub-extinction asteroid impact

Photo: flickr.com/photos/flydime (cc)

SIRT's Adam Hickman prepares Trevor Haldenby for an interview during the Speakers' Corner at Action Camp, May 2011, OCAD University.

Project Structure

http://2020mediafutures.ca/Project+Structure

***Strategic foresight* is a systematic approach to gathering intelligence about possible futures and building shared visions, aimed at guiding and enabling present-day decisions. Veteran futurist Richard A. Slaughter gives this definition: "Strategic foresight is the ability to create and sustain a variety of high quality forward views and to apply the emerging insights in organizationally useful ways; for example, to detect adverse conditions, guide policy, shape strategy; to explore new markets, products and services."**

2020 Media Futures is designed to use time-tested strategic foresight methods to gather and develop critical knowledge, structure and support for the creation of strategic plans and partnerships that proactively engage emerging markets. The project is structured in four parts:

1. Project Framing

April–June 2010

In this period we confirmed the subject, scope, methods, and categories of participants for the research

2. Horizon Scanning

July–October 2010

Emerging Signals. We developed trends and drivers of change by collecting, organizing and prioritizing emerging signals across Social, Technological, Economic, Ecological, and Values spectra (in Foresight jargon, "STEEPV Analysis")

Online questionnaire. Through a highly structured process (known as "Delphi method") lead by project partner Nordicity and Research Assistant Gabe Sawhney, we collected structured responses to specific projections from local, regional and global experts (approximately 100 respondents)

Scanning Analysis. We conducted pattern finding and correlation via collaborative sense-making.

3. Foresight Scenarios

November 2010–February 2011

2020 Media Futures has produced, among its primary deliverables, a set of four "Foresight Scenarios." Scenarios are collaboratively developed, narrative accounts of possible future situations. They do not constitute strategic planning but precede and feed it, describing the potential environment in which Creative Cluster firms will operate. Scenarios amplify existing signals in the emerging STEEPV landscape. Scenarios do not represent "predictions" but rather possibilities that may come to pass.

The foresight scenarios that form the heart of the project emerged from a two-day intensive workshop engaging approximately twenty-five thought leaders across the partner and participant network, representing leading firms from the Creative Cluster. Included were representatives from infrastructure, IP law, tech policy and related fields.

4. Visualization and Dissemination

March–July 2011

Scenarios authoring and illustration.
Video interviews with industry experts (10 subjects)
Report preparation and design.
Web site update enabling open access to all reports.
Public Presentations.

TRENDS

Prepared by Suzanne Stein, Super Ordinary Lab, OCAD University
in collaboration with Scott Smith, Changeist

http://2020mediafutures.ca/Trends

Trends are patterns of change that indicate significant, directional shifts across a broad spread of life and observation. In practicing Strategic Foresight we encourage breadth by scanning across Social, Technological, Economic, Ecological, Political, and Values (or STEEPV) spectra.

Trends have potential for growth and significant long term impact. According to veteran futurist and author of Megatrends John Naisbitt, "Trends are bottom-up, fads top-down" (Naisbitt 1982). Our work with 2020 Media Futures partners, together with members of the wider community including technology and infrastructure companies, has discovered, documented and developed trends through a collaborative process that builds from Signals. This raw material was elaborated and edited by Suzanne Stein and Scott Smith to produce a Trends Package, which is summarized below. For the full 2020 Media Futures Trends Package complete with longer texts and illustrations please visit 2020mediafutures.ca/trends.

Social

Remix Culture: The emergence of cultural artifacts, processes, values and behaviours that support recombination of creative works, enabled by the digitization of media, as well as the availability of knowledge about others' creations provided by open, global networks.

Education 2.0: New technologies in the classroom, and the dynamics of the Web, are transforming the ways in which students and teachers interact with educational media and practices, opening the learning experience up to many new approaches.

Game of Life: As the "social web" embeds a layer of additional data on our day-to-day lives, playfulness and competition are assuming larger roles in driving behaviours, connections and discovery.

Attention Fragmentation: The fragmentation of content into smaller bits, consumed rapidly and frequently, has both been driven by and is causing further shifts in cognitive patterns, toward shorter attention spans.

Language Clash: While English has been the dominant language of online content for the past two decades, shifting demographics of technology usage, as well as changing national populations, means this dominant position may be relinquished in the next two decades.

Technological

Hybrid Technologies: Powerful new platforms are beginning to emerge through the hybridization of two or more technologies or media, such as Internet TV, portable video, or mobile messaging, creating new possibilities to modify and extend media in new ways.

Network as Platform: The second major wave of technology innovation on the Web, known as Web 2.0, positioned the network as the primary platform for computing. This is pushing media with it out onto the so-called "cloud," making locally stored and played media more and more irrelevant.

Atoms to Bits: More and more content is being converted from physical or non-digital formats to digital ones for easier and radically cheaper distribution online.

Data Traffic Crunch: Numerous forecasts show demand for digital media, coupled with the massive amounts of storage required to host both professional and DIY content, may drive us toward a bandwidth crunch in coming years.

Portability and Mobility: Mobile devices are permeating more and more areas of our lives, strongly shaping the consumption and communication behaviours of society, changing how we interact with location and each other.

Ecological

Green Considerations: Year-on-year growth in consumption of digital devices is creating environmental pressures, both around the disposal of (unused) electronics, their packaging, and the power our current devices consume.

The Problem of Stuff: Despite the promise of dematerialization implied by the digital revolution, we seem to be drowning in stuff, potentially impacting demand, and shaping tolerances for new innovations due to acquisition fatigue.

Toxic Tech: Personal technology is not only having positive effects on our lives, but is also a source of concern about our health and its impacts on us. Issues ranging from mobile phone radiation and EMF from ubiquitous networks, to hazards in the plastic and metals in our devices, are causing concern.

Visualizing the World: Rising amounts of data about the world around us collected through an expanding array of sensors and monitoring technologies, coupled with growing interest in data visualization, is providing us with an unprecedented window into our world

Economic

Agile vs. Formal Production: Traditional top-down models are increasingly running up against agile bottom-up approaches on the Web, creating a clash of cultures, but also driving innovation.

DIY Distribution: Digital tools and processes have enabled independent producers and creators to use the Internet as a distribution channel to directly connect with consumers and audiences in the process circumventing some of the cultural industries' traditional intermediaries.

Aggregation: The vast amount of content on the Internet provides ample opportunities to become an aggregator, helping users navigate and curate consumption.

Prosumers: Inexpensive digital production tools, digital storage, the proliferation of free online social platforms, increasing broadband speeds, and computer processing power have made it easy and inexpensive for nonprofessionals to create content.

DIY Technology: Open-source software and hardware is making it easier for individuals and groups to assemble customized devices that provide the functions they desire.

Transmedia: Creators of properties in one medium are repurposing their story, their characters and any other aspects of their IP in other media. Increasingly, productions are planned and developed with multiple platforms and media in mind from the moment of conception.

Political

A Neutral Net or Not?: Governments and private interests continue to explore the necessity of tiered Internet access to provide differential quality of service based on the status of the consumer.

IP Challenges: Peer-to-peer technologies, remixing, and hacker culture's cycle of rapidly breaking technological protections is steadily eroding the position of IP protection of content worldwide. Some commercial entities have responded by altering business models to reflect this change.

Surveillance: Both online and in the physical world, issues of covert and overt surveillance are emerging as a side effect of a society in a deep embrace with technologies and networks.

Gov 2.0: Governance enabled or enhanced via the Internet and mobile networks through new applications and services designed to create access for the wired citizen, is spreading at both local and national levels.

Values

Blurring Life and Work: The 24-hour nature of always-on access, availability of networks, and demand for productivity, mean we are losing the ability to keep work and personal consumption and behaviour compartmentalized.

Inverting Privacy: The rise of social networks and boom in DIY content have together changed the nature of privacy, allowing people to expose information about themselves on public networks, often for an incentive of lower cost services or other network efficiency.

Social Collectivity: Online access to millions of other individuals and the ease with which networks of like-minded people connect, has created the foundation for new forms of technology-enabled collaboration.

Generational Differences: Differing technology uptake patterns among different generations are creating a generational divide in demand, which will further shape the delivery channels we use in the future.

Drivers of Change

Ranked by Industry Representatives in Facilitated Roundtables

	Driver	Taken together with:	Book	Mag.	Music	Film	TV	Inter.	Delphi Survey Critical Uncertainties
1	**Social Connectivity**	Need for Human Connection	Book		Music	Film	TV	Inter.	
2	**Democratization of Tools**	Explosion of Creativity, Self Expression, Too Many Creators	Book	Mag.	Music	Film		Inter.	Bandwidth Exceeds Capacity
3	**Evolving Business Models**	Strategic Partnering, Paradigms of Ownership	Book			Film	TV	Inter.	Exclusive Content Deals
4	**Innovation / Commercialization**	Tech Innovation, Youth Innovation, Fear of Being Left Behind, Entrepreneurialism		Mag.		Film	TV	Inter.	Talent Preparation
5	**Government Subsidies**	Continued Government Funding, Cultural Competition with US		Mag.	Music		TV	Inter.	Public Financing
6	**Trusted Curation**	Loss of Gatekeepers of Quality Public As Experts	Book	Mag.	Music				Media Overload, Privacy Attitudes
7	**Empowerment of the Collective**					Film	TV	Inter.	
8	**Globalized Marketplace**	Market Demand				Film	TV	Inter.	Bandwidth to Competition
9	**Platform / Content Control**	Unmet Cross-Platform Opportunities				Film	TV	Inter.	Interoperability, Piracy
10	**Shrinking Financial Resources**	Show Me the Money		Mag.			TV		
11	**Costs of Delivery**			Mag.	Music				
12	**Accessibility as a Right**		Book		Music				Net Neutraility
13	**Digitalization of Everything**					Film		Inter.	
14	**Immediate Gratification**	Culture of Excess				Film		Inter.	
15	**Government Regulation**				Music				Foreign Ownership, Vertical Integration, Net Neutrality
16	**Media Literacy**					Film			
17	**Immersion in the Story**					Film			
18	**Authenticity Quest**						TV		
19	**Corporate Consolidation**						TV		Vertical Integration
20	**Rise of Brands**						TV		

DRIVERS

From Industry Roundtables led by Suzanne Stein and Karl Schroeder

http://2020mediafutures.ca/Drivers

Drivers analysis looks at undercurrents that foster trends: systemic forces and their structural interrelationships, such as availability of funding, government regulations, population booms, and economic developments, that last longer than any particular trend while motivating and influencing a variety of them.

In December 2010, the 2020 Media Futures project held two Industry Roundtable sessions in Toronto. The purpose was to bring together representatives from Ontario's Creative Cluster to discuss issues and trends they considered most important to the future of media, through a facilitated workshop format.

Attendees

The Roundtables drew approximately fifty participants from the Cluster. Included were representatives from the book, magazine, music, film, television and interactive media industries of Ontario. They included employees and executives from companies including Universal Music Canada, Canadian Broadcasting Corporation (CBC), Toronto Public Library (TPL), St. Joseph Media, Marble Media, and Six Shooter Records. Roughly twenty representatives attended the roundtable session for the book, magazine, and music industries, and approximately thirty attended the film, television and interactive session.

Process

The sessions took place on 7 December and 14 December, 2010, at the Ontario Investment and Trade Centre, and Pinewood Studios Toronto, respectively.

Attendees were provided with a summary the Trends Package developed by Suzanne Stein (Super Ordinary Lab) and Scott Smith (Changeist). Trends were organized along the STEEPV model (Social, Technological, Economic, Ecological, Political, Values). The trends (see pp. 32–33) covered numerous topics including remix culture, net neutrality, manufacturing and data storage.

After introductions and learning about the 2020 Media Futures project, participants were split into groups based on their industry. Each groups reviewed trends by cluster (social, economic, and technological trends first, then values-oriented, political, and ecological trends). Groups were asked to consider what driving forces underlay those trends. In a facilitated discussion, participants ranked drivers in order of importance and impact to their industry. Resulting drivers were later collated together in the table opposite.

'Jetsons' Exercise

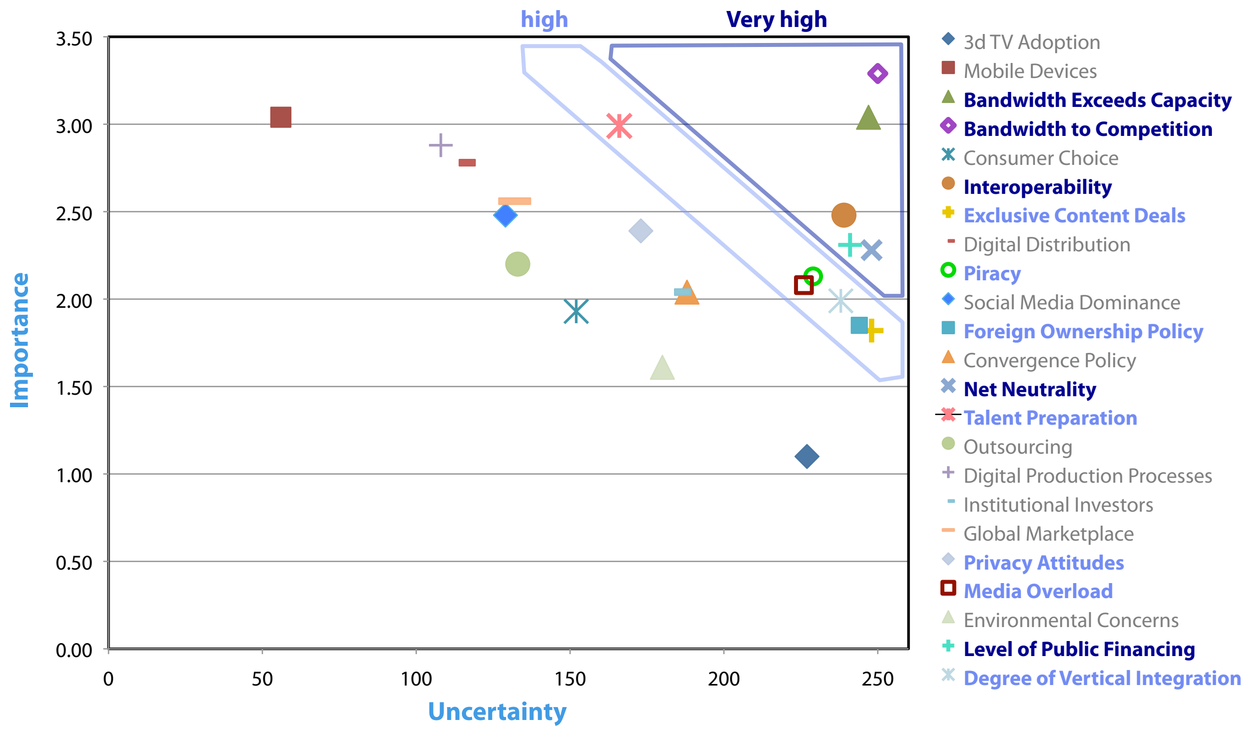
We concluded each roundtable gathering with a brief exercise created and led by science fiction author and 2020 Media Futures researcher, Karl Schroeder. Using the title "Jetsons" to establish connotations of speculative, unbridled future possibility, this segment is designed to encourage participants to think beyond their customary mindset when considering potential futures for their industries. It was offered as a warmup for the larger Scenarios Workshop to come. In the Jetsons exercise, participants were first offered a selection of provocative questions to answer, including the following:

* What is your most basic assumption about how your industry works? Now, what possible event or innovation could change that by 2020?
* What would the next iPad or equivalent for your industry look like?
* Name a job title for your industry that doesn't exist now but might in 2020.

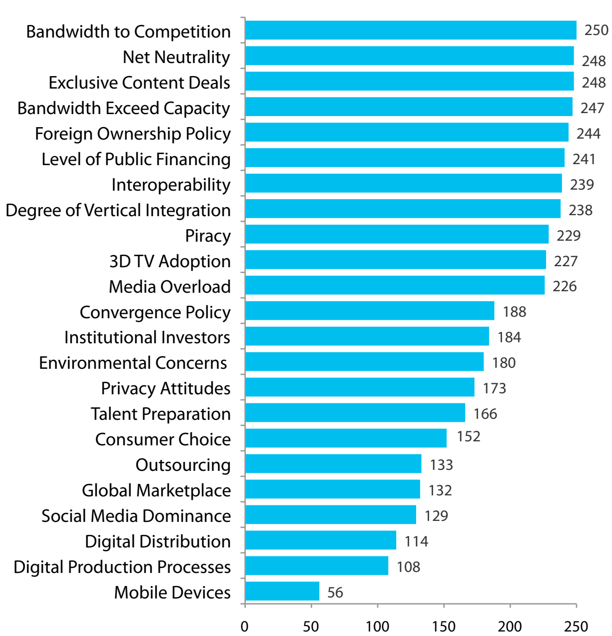
Each participant was encouraged to create a hypothetical news headline for his or her industry, a decade from now. Selected headlines included:

* PM Justin Trudeau Announces Federal Government Will Cease to Fund CBC
* Canada Book Fund Discontinued Due to Lack of Use; Money Allocated to New Media Creators
* 2020 Giller Prize Awarded to First Video Game
* Canada Post Closes Last Sorting Plant
* Final Ontario School Closes
* Will Rhett Leave Scarlett? You choose the ending in this personalized remake of your favourite film.

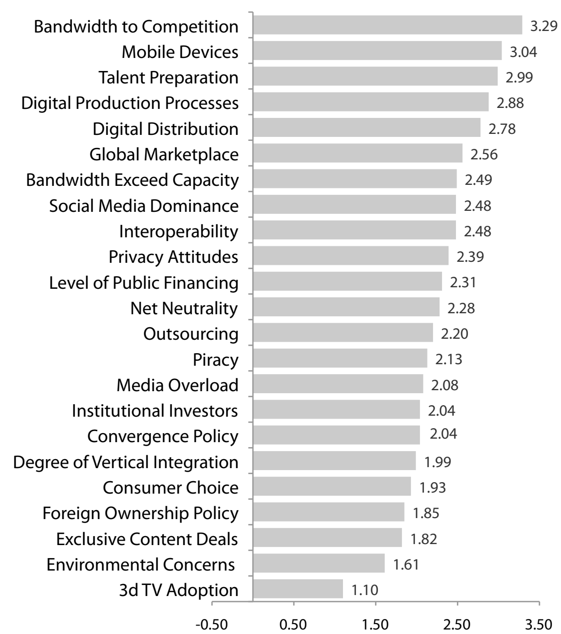
Critical Uncertainties



Uncertainty Scores by Question



Importance Scores by Question



CRITICAL UNCERTAINTIES

Delphi Survey prepared by Nordicity and Gabe Sawhney

http://2020mediafutures.ca/Critical+Uncertainties

In order to study the future we must develop methods to anticipate and map unexpected, divergent future possibilities. And so scenario planners have developed the concept of *critical uncertainties*: areas of change that have critical importance to the question at hand — in our case, the future of creative media — and, at the same time, are highly uncertain: difficult to call.

2020 Media Futures engaged Nordicity and Gabe Sawhney to organize a survey of opinion around issues of sensitivity in the Creative Cluster. The goal of the engagement was determined as identification of "critical uncertainties" in the evolution of cultural media industries over the next ten years.

The format of the study was a two-round Delphi. *Delphi* is a type of survey method used to gather and analyze opinion, and identify or achieve points of consensus among experts in fields that require a high degree of human judgment. Delphi is an established foresight technique that involves repeated polling of knowledgeable individuals. By feeding back anonymized responses from earlier rounds of polling, we allow for better judgments to be made without undue influence from forceful or high-status advocates. Delphi was developed "...so as to circumvent 'follow the leader' tendencies of face-to-face exchanges, and other problems such as the reluctance to discard previously stated opinions" (Popper, Blackman and Forge, 2010).

Methodology

This 2020 Media Futures Delphi Survey serves to collect data from a broad array of local, regional and global respondents, to prioritize issues or drivers of change thought to be most important and most uncertain, in their anticipated impact on Ontario's cultural media and related industries. Questions were generated to elicit consensus (or lack thereof) among survey respondents. For each identified issue, one question was asked with respect to the likely or expected evolution of that issue (the *uncertainty* question); and another question to gauge how critical it was to the respondent's organization and/or industry (the *importance* question).

* Round One was open from November 4–9, 2010, accessible directly to a preregistered group of respondents and also via an open, public link, publicized through professional and social media.
* Round Two, November 11–15, presented results of Round One where consensus was not reached and asked respondents to re-evaluate (and re-enter) responses.

The Delphi process revealed the following Critical Uncertainties (in rough descending order):

* Bandwidth's role in regional/global competitiveness (Bandwidth to Competition)
* Bandwidth demand may exceed capacity (Bandwidth exceed capacity)
* Talent preparation
* Device and software interoperability
* Level of public financing
* Network neutrality
* Attitudes towards privacy

Other areas of potential critical uncertainty identified through free text comments include:

* Role and impact of location-based media
* Role of "angel investment" in media
* Willingness of consumers to pay for media (thus the ability to monetize digital media)
* Role and importance of wearable technologies
* Changing nature of the computer
* Impact of shifting (i.e. aging) demographics
* Territorial-based vs global marketplaces
* Consolidation of distribution channels (e.g. iTunes, Amazon)
* Impact of unequal distribution of technology across the world
* Role and importance of nonprofessional (i.e. user-generated) content
* Sustainability of Canadian content regulations and policy.

ACTION CAMP

Hybrid Workshop / Unconference led by Greg Van Alstyne, Kathleen Webb, Madeline Ashby, Suzanne Stein, Karl Schroeder, and session leaders below

http://2020mediafutures.ca/Action+Camp

2020 Media Futures: Implications for Action was a free, one-day event at OCAD University, part scenarios-driven workshop, part self-organized 'camp'. We invited project partners and other participants from Ontario's Creative Cluster to join us in examining the nature of change in business models, policy innovation, intellectual property, distribution channels, and other areas of critical importance.

Our broad goal was to collaboratively prepare for the future, in light of future scenarios, methodically developed by the 2020 Media Futures project. We aim to harness the collective intelligence of participants from the Creative Cluster. We asked, "What are the innovative strategies, services, perspectives that promise resilience and growth in the emerging media landscape over the next decade?"

Scenarios-Driven Workshop

The 2020 Media Futures team used the morning sessions to introduce diverse future scenarios, distilled from our collaborative project research; and to conduct breakout workshops on strategies for success within each scenario.

A "Speakers Corner" (pp. 40–41) captured video responses to the scenarios and industry issues raised.

Camp Sessions

We invited those interested in leading an afternoon session to do so by posting the idea on the project wiki or auditorium wall. Six openings were made available in breakout spaces, across two time slots. Session leaders were asked to offer brief introduction and context, then open up conversation, inviting everyone to contribute. Proposals included:

* Business models
* Policy innovation
* Social media
* Transmedia storytelling
* Intellectual property
* Creation & authoring
* Distribution & licensing
* Experience and interaction

True to the 'camp' format, motivated attendees proposed sessions and then facilitated them.

Access to Capital for International Competitiveness
Sarah Ker-Hornell, ED & CEO, FilmOntario
This session explored policy innovations and incentives which could increase the flow of investment (largely mezzanine) to creative industries.

Long Form Digital Narrative
Anthea Foyer, Director, The Labs
Looked at funding sources including advertising, government support, and broadcasters; transmedia/cross platform content creation; distribution and audience concerns.

TweetSpeak: The Language of Twitter
Priya Rao and Liz Gallo, Jumpwire Media
Creating Meaning in 140 Characters (or Less): how is this emergent form changing relationships, for example between writers, readers and publishers?

2020 Opportunity Clinic
Walter Derzko, Toronto-based consulting futurist, former director of IdeaLab, DX
This session examined process and results for finding different windows of opportunity in each scenario.

McLuhan Camp
Bob Logan, Chief Scientist, sLab, OCAD University
A 'rear-view mirror' approach to the future using McLuhan's figure/ground analysis and working backwards from effects to causes.

Physical to Digital: Books & Other Creations
Meghan MacDonald, BookNet Canada and Nic Boshart, ACP
Discussion dealt with disaggregation/recombination of content; emerging technical standards for publishing and discovery; social media and user curation.

INTERVIEWS

Coproduced by sLab at OCAD University, Zan Chandler/Zancom Media and Sheridan Institute's Screen Industries Research and Training Centre (SIRT)

http://2020mediafutures.ca/Interviews

In conjunction with the Implications for Action Camp that took place in May 2011 to explore implications for the 2020 Media Futures scenarios, a Speakers Corner was set up in which participants were asked to express their thoughts regarding opportunities, challenges and strategies for success in the face of internet-driven disruption.

Interview participants represented a range of industries and perspectives including: publishing, interactive digital media production, transmedia, social media, business development and investment.

* A series of videos has been produced from this interview session.
* For each interviewee, there is a video that includes his or her answers to each of the five questions posed.
* In addition, there is an Interview Highlights compilation that includes a selection of answers to each question from the various interviewees.

Participants were asked the following questions:

In the face of internet-driven disruption of the "Creative Cluster" industries — books, magzzines, music, film, TV, interactive media:

* **What are the major challenges for your industry or community?**
* **What are some key emerging opportunities?**
* **Which of the 2020 Media Futures Scenarios represents a preferred future?**
* **What marketing and distribution strategies will be critical for success?**
* **Which changes or innovations do you think would be most helpful for organizations in these sectors?**

Allan Novak
Independent Producer

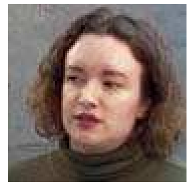
"In Canada, we have great access to subsidies, tax credits, seed financing. So I think leveraging the advantages we have as Canadians is a great thing to do because we are actually the envy of a lot of other countries in the world. For instance, US TV producers don't often own the copyright to their own shows for cable TV, whereas Canadian do, because of government regulations. So we've actually got a leg up and if we can leverage some of those advantages, we can make content on a global scale out of Canada."

Robert Hayashi
eBound Canada/ACP

"Our challenge is discoverability – how to bubble up Canadian content. The consumer, sitting at their laptop, tablet or smartphone, has a worldwide amount of choice in front of them... in ebook format, in print book format, video, streaming video, film, whatever. That's the true challenge – how to make that discoverable for those people who are interested. And not just for Canadian content but for just true, relevant, meaningful content that they can use."

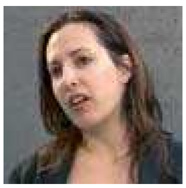
Michael Cayley
Cdling Capital Services Inc.

"One of the things that is happening globally – and we see the effects of it here domestically as well – is that the costs of launching a global start up have dropped dramatically... What's happening in other places is taking off here as well. We have all kinds of new start-ups that are getting out of the gate and have prospects that weren't present, let's say, three or four years ago."



Madeline Ashby
Author, 2020 Media Futures researcher

"There are more and more types of ways of writing to make money. Your career can have as many branches on it as you allow to grow there. If you define yourself solely as a print media writer then you'll die. But if you open yourself up to all the opportunities that are available you'll probably do quite a bit better."



Liz Gallo
Jumpwire Media

"There are amazing opportunities to interact with your fans, with your customers, with your consumers to get real-time feedback from them, to engage with them in ways . . . to be inspired by them."

"When you are working in social media, I see it as an amazing opportunity for curation and to get inspiration and form partnerships with different people and new technologies."

Priya Rao
Jumpwire Media

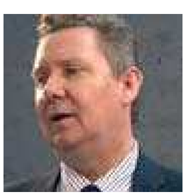
"For us one of the challenges has been how to have authentic conversations in the social space. It's not just about selling something or telling a story... it's about creating a relationship.... Opportunities are really endless because social media is opening up the world, enabling each of us to communicate with one another on an instantaneous basis."

Trevor Haldenby
Digital content producer

"One of the biggest problems facing my industry... is the huge surge in innovation that we've seen in the last 15–20 years, particularly in digital content production, distribution and consumption... A lot of people, because there's been a huge surge, think that we can slow down a little bit. Coming to terms with the possibility that that shift may come sooner, even in the next 5–10 years... is pretty important."

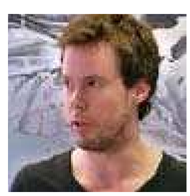
Karl Schroeder
Author, 2020 Media Futures researcher

"Having a website of my own, and the capability of creating ebooks, I can theoretically cut out the middle man and sell directly off my website. Do I want to do that? How far down that road do I want to go? Or do I want to stay with the traditional publishing apparatus, which may or may not survive the next few years?"



David Plant
Cameron Thomson Group

"The reality of Wedia *is that many are called and few are chosen. That's the world of YouTube. Thousands, millions of pieces of content, but really, there's probably only 100–200 memes that have come out of YouTube that will have any lasting value, that people will remember five or ten years from now. Big media needs big money and big media is what has the lasting value. If there were no Hollywood, it would have to invent itself."*



Chris Stevens
Atomic Antelope

"Not only has Apple's iTunes network liberated the creative process for me, and the illustrators with whom I work, but it's also the whole reason I got involved in commercializing what I was creating. There's probably a lot of people who would not have started a business if they had to run the infrastructure that Apple now automates."

FINDINGS

Reflecting Back and Thinking Ahead

Greg Van Alstyne and Zan Chandler

http://2020mediafutures.ca/Findings

Simply put, *there are no facts about the future;* it is inherently uncertain. And so, strategic foresight seeks to understand and examine this uncertainty in structured ways. Our aim is to build understanding toward envisioning *possible* futures.

For this reason we must remind ourselves that foresight does not deliver *conclusions or recommendations per se*. The value in these findings and stories will not lie in any 'authoritative' statements we might be tempted to make. Rather, this work offers value as experiential learning (for all those involved in its creation) and (for others) as a collective expression of possibility, an emergent image of *possible futures*.

In this light, we wish to close with consideration of the following: *principles* from which our work has proceeded; *patterns* that arose through the work with clarity and regularity; and *key questions* of relevance for individuals and organizations in the cultural media cluster.

Principles

To help you assess the value and relevance of this work to your own industry or community, in the spirit of open foresight, these are some of the underlying values and assumptions guiding the effort:

Practice what we preach From the beginning we have sought to embody the practices and priorities of the creative cluster. We want to move people to action and to practice design thinking. It is important to us that our scenarios process and results provoke thought and create vivid images of possible futures. Thus we feature graphic design and illustration by OCAD U alumni, Ghazaleh Etezal and Ryan Lake. For similar reasons, we have also incorporated video interviews with researchers and industry experts.

Relevance for the Cluster This project is centred on the creative media industries. We have continually asked, 'What does this mean for the cluster?' How might cluster individuals, firms and associations make use of this material? How can we invite and encourage participation in this foresight project, and how can we make the outcomes understandable and memorable to a wide and diverse group?

Inclusive, platform-independent approach
We have sought to illuminate opportunities, insights, tools and processes for both incumbents and challengers (newcomers). Our work takes an ecosystem approach and our aim is a healthy ecosystem with diversity and abundance of players and roles. We favour no platform, formula, model in and of itself, but ask how it contributes to the growth or development of the cluster as a whole.

Faithful to strategic foresight Why is it important or useful to consider the scenarios? Since its introduction in the Post WWII period, scenario planning has become a signature feature of strategic foresight. Scenarios offer something that can't be derived from other methods – a way of enabling our imaginations and creativity to alert us not simply to *what is* but also to *what might be*. At sLab, our approach to strategic foresight is imbued with design thinking. It is designed to expand horizons through creative lateral thinking – to help overcome biases or blind spots, for example – while contributing to making better business decisions today.

Patterns

Proceeding from the principles above, through collaborations and consultations, we planned and executed the project. Along this path we encountered a number of patterns that rose through the noise with recurrent clarity. We will take a moment to express a few of these patterns as we experienced them. They are not all new or unique to this discussion, though some may be. Still their presence in this project is undeniable. Top patterns discerned in this project include the following:

* **Bandwidth as a critical uncertainty** This issue rose to prominence via the Delphi Survey. How we deal with charging users for internet usage will determine how content is produced, disseminated and enjoyed – as well as how competitive Canada will become in the future.
* **Social media as democratization of tools, content and expression** This pattern was amongst the clearest of all those that rang through the two Drivers roundtables.
* **Rising potential of transmedia** The importance of storytelling has implications for the whole cluster, and carries opportunities for cross sectoral collaboration. *Transmedia* appears as a potentially significant driver that encompasses and transcends the simpler idea of *cross-platform*.
* **Reconciling copyright and remix culture** We see a growing demand among users to play a more participatory role as they engage with content. This driver, combined with cheap and easy content production tools, challenges existing copyright regimes and the inclination to control content and punish infringement.
* **No one-size-fits-all business models** It may be time to get used to reinventing the wheel every time you go out.
* **Loosening control vs losing it** Clearly consumers of content can play an important role in marketing and distributing it – consider what can be gained by enabling them, rathan than crippling this through Technical Protection Measures (TPM) or Digital Rights Management (DRM).
* **Recognizing the emerging role of 'prosumers'** in Alvin Toffler's prescient term. "The people formerly known as consumers," as futurist Gerd Leonhard calls them, are able not only to produce, but also to facilitate entirely new marketing and distribution possibilities. Users can play active roles throughout the value web

Questions

So what might this all mean for your organization or sector? Because we can see the patterns outlined above expressed in different ways and to varying degrees in each of the four 2020 Media Futures scenarios, a useful place to start would be to consider how you are positioned to respond to these patterns and possible futures.

To help guide thinking around preparedness, we've outlined a few questions. As you consider future products/services and business models:

* Which Scenario best represents the prevailing *assumptions* in your organization or community?
* Which Scenario might represent a *preferred future* for your organization or community?
* Are you adequately prepared for uncertainties and potential shifts related to bandwidth? How might changes here, due to increasing congestion, higher prices, removal or addition of technical or regulatory hurdles, affect your business? How does your organization or community need to transform in order to thrive in any resulting environment?
* As more and more content producers explore transmedia and crossmedia, does your organization have the necessary skills to embrace the full potential of this form of storytelling?
* "The people formerly known as consumers" have clearly demonstrated their desire to play a more participatory role. What will be your organization's or community's response? Ignore them, or find appropriate ways to partner with them?
* Linear perspectives on the traditional value chain see consumers bringing value at the end of the process. With possible futures speaking more to value webs, more nodes in the network let consumers bring more value. How well positioned are you to take advantage of these?
* Traditional perspectives on copyright are being challenged by 21st century technology and values. In a world of perfect digital copies, what other goods or services can be monetized? What strategies are necessary for your organization or community to continue or thrive?
* *Loosening* control may not be the same as *losing* it. Given that consumers can contribute to marketing and distributing content, how prepared are you to partner with them?

Looking Ahead

If there is a clear message rising above all others in this time of breakneck change, it may be that there's no substitute for learning, agility and adaptability. This means finding pathways toward resilience while avoiding or evolving beyond brittle structures. There are implications for formal education: what's needed is not updated training, but *true education* – learning how to learn, and how to stay critical, rather than rote skills.

Finally, a few thoughts about further research. 2020 Media Futures was conceived as a two-phase project. We began with Strategic Foresight and plan to continue with Inclusive Innovation. In the next phase we hope to build on the scenarios by creating rich, immersive experiences: tangible futures. We'll work with top innovators in the Cluster to curate and commission prototypes, to articulate criteria and strategies for the specific industries. We hope you will join us in planning, debating, developing and experiencing this vision of diverse future possibilities.


Photo: flickr.com/photos/jurvetson (cc)

Acknowledgments

We wish to acknowledge and thank the numerous contributors that have made this project possible. These committed organizations and individuals have created the opportunity to try and deliver the kind of participatory, vision-building, stakeholder-driven experience and outcomes that represent the heart of contemporary strategic foresight.

First and foremost our thanks go the Project Partners, detailed on page 3 of the Final Report and online at ((Partners)). Without the experience, generosity, and brand-name recognition of these firms and organizations, we could not have hoped to accomplish our goals. Thanks to our passionate ((Partner Reps)). Each partner provided at least two such representatives. Strategic foresight requires diverse, individual points of view, and actively questions cognitive, organizational and other biases. And so we asked each of them to "represent your 'whole self' as well as your organization" -- and they delivered.

Our funder, OMDC, represented by Shari Cohen, has provided not only unwavering financial support but also hands-on attention, and participation in numerous project events.

We are grateful for the financial support of KPMG and for our champions there, Winnie Leung and Italia Corigliano. Thanks too to the support of Robert Montgomery and nextMEDIA, for enabling 2020 Media Futures to bring its research questions, announcements, and key findings to nextMEDIA events in Toronto and Banff.

Thanks to John Helliker and Jean Desormeaux from Sheridan Institute's Screen Industries Research and Training Centre (SIRT) for co-organizing our film/TV/interactive roundtable, Speakers' Corner video segments, and catalyzing many new interactions between our research labs. Thanks to SIRT's Adam Hickman and Jim Hagarty for beautifully capturing and editing (respectively) the HD video interviews, and to OCAD U's Ramtin Lotfabadi for Vimeo techniques.

Sincere thanks to Nordicity's Peter Lyman and Kristian Roberts as partners, collaborators and co-authors whose humour, sagacity and research insight is unmatched in the creative cluster.

Our core team of organizers handled communications, finances, research methodology, creative strategy, event planning, and more with great assurance, experience and creativity: thanks to Lenore Richards, Suzanne Stein, Bob Logan, and Kathleen Webb, whose initiative lead to the project's founding.

For tirelessly creating the project's visual identity, publication design, wiki/web site, and illustrations, we wish to thanks to Ghazaleh Etezal, Nelson Ko, Daniel Kim and Ryan Lake.

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Finally, since the raison d'être of Strategic Innovation Lab and OCAD University is research and education, it gives us pleasure to recognize and thank our talented Graduate Research Assistants: Madeline Ashby, Zan Chandler, Spencer Saunders, Gabe Sawhney, and Karl Schroeder, whose energy and intellect made the work enjoyable and edifying.

–Greg Van Alstyne, 2020 Media Futures Project Lead

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What will our media and entertainment be like by 2020?

What kind of Internet might emerge in the coming decade?

What's in store for content creators, storytellers and publishers?

How can our 'creative cluster' organizations future-proof themselves?

What are the critical uncertainties, challenges and opportunities?

Which marketing and distribution strategies will be key to success?

Can rules and incentives be made that strengthen the creative industries?

What action can we take today to capture leadership positions?

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